

Bulletin of the Academy of Sciences of the USSR Division of Chemical Science 1978 vol.27 N11,
pages 2179-2183

The geometrical structures of phosphorus-containing heterocycles 20. 1,3,2-Dioxaphosphorinanes with two geminal axes of internal rotation

Arbuzov B., Kataev V., Arshinova R., Gubaidullin R.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

1. In solution, 5,5-bis(bromomethyl)-1,3,2-dioxaphosphorinane exists as an equilibrium mixture of conformers with trans-gauche and gauche-gauche orientations of the Br-C-C5-C-Br chain (the first index refers to the equatorial halomethyl group). 2. The 2-chloro- and 2-ethoxy-5-t-bis(chloromethyl)-1,3,2-dioxaphosphorinanes exist not only in the trans-gauche and gauche-gauche forms but also in a gauche-trans form with the C-Cl bond of the axial chloromethyl group in trans orientation. 3. 2-Hydro-2-oxo-5,5-bis(halomethyl)-1,3,2-dioxaphosphorinanes exist as mixtures of conformers containing two chair forms with axial and equatorial phosphoryl groups. © 1979 Plenum Publishing Corporation.

<http://dx.doi.org/10.1007/BF00946656>
